Name: Dr. Bhanvi Wadhawan

Designation: Assistant Professor

Specialization: Zoology and Entomology

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Education

M.Sc. Zoology with Specialization Entomology (2008, Punjabi University, Patiala) National Eligibility Test (UGC-CSIR NET)- December 2007, June 2008 Ph.D. (28th March, 2016, Punjabi University, Patiala)

Title of Ph. D Thesis: Entomotoxicological Studies On *Chrysomya megacephala* (Diptera: Calliphoridae) Feeding Upon Animal Tissues Administered Various Chemicals Antemortem

Professional Experience:

Assistant Professor, Department of Zoology, M.M. Modi College, Patiala, India (19th January, 2016 to present date)

Assistant Professor, Department of Agriculture,, Govt. Mohindra College, Patiala, India (6th July 2015 to 15th January, 2016)

Assistant Professor, Department of Agriculture,, Govt. Mohindra College, Patiala, India (17th July 2014 to 15th May, 2015)

Senior Research fellow (UGC-CSIR), Department of Zoology and Environmental Sciences, Punjabi University, Patiala (1st May 2011 to 30th April 2014)

Junior Research fellow (UGC-CSIR), Department of Zoology and Environmental Sciences, Punjabi University, Patiala (15th April 2009 to 14th April 2011)

Lecturer, Department of Zoology, M.M. Modi College, Patiala, India (21st July, 2008 to 25th March 2009)

Teaching Interests:

- Biodiversity: Chordates and Non-Chordates
- Biochemistry and Physiology
- Cell and Molecular Biology
- Developmental Biology and Genetics
- Evolutionary Biology and Ecology
- Economic Entomology and Pest Management

Research Interest:

Entomology, Forensic Entomology, Entomotoxicology

Publications

- 1. Devinder Singh, Madhu Bala and **Bhanvi Wadhawan** (2007). Survival of postfeeding larvae and pupae of *Chrysomya megacephala* (Fab.) (Diptera; Calliphoridae) after submergence in oil. *Journal of Punjab Academy of Sciences*. **4 (1-2)**: 95-98. https://drive.google.com/open?id=1q_BD7VbIUBHQxqBCTkHgdy9ilMiW6C2R
- 2. Devinder Singh, Rashmi Garg and **Bhanvi Wadhawan** (2012) Ultramorphological characteristics of immature stages of a forensically important fly *Parasarcophaga ruficornis* (Fabricius)(Diptera: Sarcophagidae). *Parasitology Research*. **110** (2), 821-831. https://doi.org/10.1007/s00436-011-2561-7
- 3. Devinder Singh, Bhupinderjit Kaur Heer and **Bhanvi Wadhawan** (2014) Effect of Ketamine Hydrochloride in Combination with Xylazine on the Development of *Chrysomya megacephala* (Fab.). *Indian Journal of Forensic Medicine & Toxicology*. **8 (1)**: 140-145. https://www.indianjournals.com/ijor.aspx?target=ijor:ijfmt&volume=8&issue=1&article=030
- 4. Devinder Singh, Bhupinderjit Kaur Heer and **Bhanvi Wadhawan** (2016) Detection of Ketamine hydrochloride and its effect on the development of immature stages of a forensically important blow fly *Chrysomya megacephala* (Fabricius) (Diptera: Calliphoridae). *Journal of Entomology and Zoology Studies*. **4(2)**: 91-97. http://www.entomoljournal.com/archives/2016/vol4issue2/PartB/4-1-38.pdf

Review Articles

 Devinder Singh, Madhu Bala, Manish Sharma and Bhanvi Wadhawan (2009) Forensic Entomology: An exhaustive review. *Annals of Entomology*. 27 (1-2): 1-44. https://drive.google.com/open?id=1PlcuhK5407HjEabtehQEW4U-BKQTxUfy

Book/Book chapter

- Devinder Singh and Bhanvi Wadhawan (2011) Emerging trends in forensic entomology: An eye towards the future, Entomology Ecology & Biodiversity. Scientific Publishers. 292-310.
 https://books.google.co.in/books?id=oro4DwAAQBAJ&lpg=PA292&ots=3pHsZ1uvLG&lr&pg=PA292#v=onepage&q&f=false
- 2. Devinder Singh and *Bhanvi Wadhawan* (2010) Role of entomotoxicology in crime investigation, *Advances in Entomology: Proceedings of International Conference on Entomology February 20-22:2009 .Kanishka Publishers & Distributors, New Delhi.* 281-288

 https://drive.google.com/open?id=1uHBLDzEN7I-7dIUFdBRjmO-SQbtju1kt

Conference / Seminars

A) Resource Person / Invited Lectures: N.A.

B) Paper presented:

- Bhanvi Wadhawan (2007) DNA Barcoding Vs. Conventional Taxonomy in International Conference on Ants and other social Hymenoptera at Department of Zoology, Punjabi University, Patiala, Punjab (10-13 October, 2007)
- 2. Devinder Singh and Bhanvi Wadhawan (2009) Survival of postfeeding larvae and pupae of *Chrysomya megacephala* (Fab.) (Diptera: Calliphoridae) after submergence in oil in International conference on Entomology at Department of Zoology, Punjabi University, Patiala, Punjab (20 22 February, 2009)
- 3. Devinder Singh and Bhanvi Wadhawan (2010) Blow Flies: Novel Specimens in Post-Mortem Toxicology in International Symposium on Emerging Trends in Forensic Science at Punjabi University, Patiala (22-24 February, 2010)
- 4. Bhanvi Wadhawan and Devinder Singh (2010) Effect of Methyl Parathion on Development of *Chrysomya megacephala* (Diptera: Calliphoridae) and its implication in estimation of Post Mortem Interval in National Conference on Environment Degradation and its impact on mankind at Punjabi University, Patiala (19-20 November, 2010)
- 5. Bhanvi Wadhawan and Devinder Singh (2012) Determination Of Organophosphate Levels In Immature Stages Of *Chrysomya megacephala* (Diptera: Calliphoridae) reared on rat carcasses containing Methyl Parathion in International Conference on Entomology' held at Punjabi University, Patiala (17-19 February, 2012)
- 6. Bhanvi Wadhawan and Devinder Singh (2012) Effect Of Endosulfan On Development Of *Chrysomya megacephala* (Diptera: Calliphoridae) And Its Implication In Estimation Of Postmortem Interval in National Conference on Man and Environment at Punjabi University, Patiala (15 -16 October, 2012)
- 7. Devinder Singh and Bhanvi Wadhawan (2013) Measuring Cephalopharyngeal Apparatus Length of *Chrysomya megacephala* (Fab.) (Diptera: Calliphoridae) Larvae: An Alternative Parameter for Age Determination in ISCA (Patiala Chapter) (24th January, 2013)
- 8. Bhanvi Wadhawan and Devinder Singh (2014) Determination Of Organochlorine Levels In Immature Stages Of *Chrysomya megacephala* (Diptera: Calliphoridae) Reared on Rat

- Carcasses Containing Endosulfan in 'International Conference on Entomology at Punjabi University, Patiala (21 -23 February, 2014)
- 9. Bhanvi Wadhawan (2015) Measuring cephalopharyngeal apparatus length of *Chrysomya megacephala* (Fab.) (Diptera: Calliphoridae) larvae: an alternative parameter for age determination in forensic entomology studies in 7th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences at Multani Mal Modi College, Patiala (30-31 January, 2015)
- Bhanvi Wadhawan and Devinder Singh (2015) Effect of Carbofuran on development of Chrysomya megacephala (Diptera: Calliphoridae): A forensically important fly in 4th Congress on Insect Science at Punjab Agricultural University, Ludhiana (16-17 April, 2015)
- 11. Bhanvi Wadhawan and Devinder Singh (2015) Blow Fly Larval Tissue As An Ancillary Detector For Determination And Quantification Of Methyl Parathion In Rat Carcasses in National Conference on Entomology at Punjabi University, Patiala (29 -30 October, 2015)
- 12. Bhanvi Wadhawan (2016) In Vitro effect of Carbofuran on the larval development of *Chrysomya megacephala* (Diptera: Calliphoridae): A forensically important Blow fly in 8th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences (RACES-2016) at Multani Mal Modi College, Patiala (19-20 February, 2016)
- 13. Bhanvi Wadhawan and Devinder Singh (2016) Larval and Pupal tissues of Blowfly *Chrysomya megacephala* (Fab.) as alternate matrices for determination of Endosulfan levels in rat carcasses in 2nd National Symposium on Emerging Trends in Biological Sciences (NSETB, 2016) at Multani Mal Modi College, Patiala (12 November, 2016)
- 14. Bhanvi Wadhawan and Devinder Singh (2017) Developmental Effects of Methyl Parathion on *Chrysomya megacephala* (Diptera: Calliphoridae) reared on rat carrion in 'International Conference in Zoological Sciences' at Department of Zoology and Environmental Sciences, Punjabi University, Patiala (26-28 October, 2017)
- 15. Bhanvi Wadhawan (2018) Impact of Methyl Parathion on Developmental parameters of Chrysomya megacephala larva- Forensic Implications in UGC Sponsored 9th National Conference on Recent Advances in Chemical, Biological and Environmental Sciences (RACES-2018) at Multani Mal Modi College, Patiala (9-10 February, 2018)
- 16. Bhanvi Wadhawan (2019) Impact Of Ibuprofen Drug As A Toxicant In Forensic Entomology in 10th National Conference on Recent Advances in Chemical and

- Environmental Sciences (RACES-2019)' at Multani Mal Modi College, Patiala (11-12 April, 2019)
- 17. Bhanvi Wadhawan (2020) UTILITY OF CALLIPHORIDAE IN POST MORTEM INTERVAL ESTIMATION: A REVIEW in 3rd National Conference on Innovations in Bioscience and Technology held at M. M. Modi College, Patiala (NCIBT-2020) held at Multani Mal Modi College, Patiala (7 March 2020).

C) Attended

- 1. Attended 1st International Conference on Emerging Trends in Commerce, Management and Environmental Sciences (ETCMES-2016) at Govt. Mohindra College, Patiala (15-16 January, 2016).
- 2. Attended in Four days National Webinar on "Research-Innovation-Incubation" organized by Institution's Innovation Council (IIC), Pioneer Incubator and Research & Development Cell of Career Point University, Hamirpur, Himachal Pradesh (01-04 June, 2020)
- 3. Attended in a Webinar titled "Point-of-Care Diagnostics (Special reference to COVID-19 antibodies detection)" organized by Mizoram University, Aizawl, Mizoram (02 June 2020)
- 4. Attended National Webinar on "An Overview On Intellectual Property Rights" organized by DevsthaliVidyapeeth College of Pharmacy, Lalpur, Rudrapur (05 June 2020)
- 5. Attended First International Webinar Series on "COVID 19 Pandemic: A Crisis of Human health or Planet Health?" organized by MACINSERCH (Maharaja Agarsen College Teachers Voluntary Initiative for Sharing Ecological Responsibility and Conserving Heritage) (05-10 June, 2020)
 - 5th June- COVID 19 Conundrum: Rethinking Strategies and Practices
 - 6th June- COVID 19 Pandemic: Challenges and Governmental Response (morning session), Life in times of COVID (evening session)
 - 7th June- Environments, COVID 19 and the Doubly disadvantaged (morning and evening session)
 - 8th June- The trauma of Displacement: Habitats and Health (morning session), Resilience and Innovation: Public Health in Urban Contexts (evening session)
 - 9th June- Living in an Unbroken World (morning session), Verdurous Vantages during hard times (evening session)
 - 10th June- Valedictory Session
- 6. Participated in Webinar on 'World Environment Day' organized by Department of Botany and Environmental Science, Sri Guru Granth Sahib World University, Fatehgarh Sahib, Punjab (05 June, 2020)

- 7. Attended the talk on "Climate Change, Environmental Degradation And Pandemics" by Prof. L.S. Shashidhara in a Webinar organized by Department of Zoology and Environmental Sciences, Punjabi University, Patiala (05 June, 2020)
- 8. Attended the Webinars 'Salivary Metabolomes As A Tool For Screening Cancers at an Early Stage' and 'Advances in Regenerative Medicine Through Indo-JapaneseCollaboration' organized by Mizoram University, Aizawl, Mizoram (05 June 2020)
- 9. Participated inSEAMEO (Southeast Asian Ministers of Education Organization) -UNESCO Joint Webinar on World Environment Day"COVID-19 Effects on Biodiversity: Science Education Reimagined" (05 June, 2020)
- 10. Participated in special Webinar Sessions on 'World Environment Day' organized by Jindal Centre for the Global South, O. P. Jindal Global University, Haryana (05-06 June, 2020)
- 11. Participated in a Webinar titled "Study of biomarkers for diagnosis and prognosis of tuberculosis infection" organized by Mizoram University, Aizawl, Mizoram (06 June 2020)
- 12. Participated in a Webinar titled "Contribution of B-1 Cells during Mycobacterium infection" organized by Mizoram University, Aizawl, Mizoram (06 June 2020).
- 13. Participated in the Webinar on "The Importance of Symbiotic Microorganisms in Drug Discovery" organized by Department of Forestry & Department Of Environmental Science, School of Earth Sciences and Natural Resources Management, Mizoram University, Aizawl (06 June, 2020)
- 14. Participated in International Webinar on "Recent Progress in Therapeutic Interventions for COVID 19" organized by Department of Zoology and Environmental Science, School of Basic and Applied Sciences, Maharaja Agarsen University, Himachal Pradesh (06 June, 2020)
- 15. Attended National E-Conference on "New Teaching Strategies: Post COVID -19 Pandemic" organized by Department of Zoology, DAV College, Amritsar (09 June, 2020)
- 16. Attended the talk on "Evolutionary Biology in the Lab and Beyond" by Prof. Amitabh Joshi in a Webinar organized by Zoological and Environmental Society, Department of Zoology and Environmental Sciences, Punjabi University, Patiala, (13 June, 2020).
- 17. Attended the talk on "The Generation and Distribution of Biodiversity in the East Himalaya, from Trees to Birds" by Prof. Trevor D. Price in a Webinar organized by Zoological and Environmental Society, Department of Zoology and Environmental Sciences, Punjabi University, Patiala (18th June, 2020)
- 18. Attended the Webinar on the topic "Mending the Broken Heart: Evolution of Novel Therapeutic Approach" delivered by Dr. Suresh Verma, TheUniversity of Alabama at Birmingham, Birmingham, USA organized by the School of Life Sciences, Mizoram University, Aizawl (18 June, 2020)
- 19. Attended International Webinar on "Forensic Entomology and Its Relevance in Legal Proceedings" organized by the Department of Zoology, University of Lucknow, Lucknow (29-30June, 2020)

- 20. Attended the webinar on "Tree Improvement at a glance and Wildlife conservation- Why and How?" organized by Department of Forestry, Mizoram University, Aizawl (30 June 2020)
- 21. Attended Webinar Presentation on "Publish To Flourish" organized by Mizoram University Aizawl, India under UGC STRIDE Program (02 July, 2020)
- 22. Attended a National Webinar on "Wildlife Conservation and Management with special focus on threatened species of India" organized by Zoological Survey of India, Kolkata and ChamanLalMahavidhyalya, Haridwar (14 July, 2020)
- 23. Participated in the webinar on "Impact of Climate Change and Biodiversity of India" organized by STLLES India, New Delhi and EcoR Foundation, Kochi (15 July, 2020)
- 24. Participated in Online Seminar sponsored by DST FIST on topic "Neuralcircuits for escape and exploratory behavior" organised by Post Graduate Department of Zoology, DAV College, Jalandhar (15 July, 2020)
- 25. Attended the Webinar on the Topic entitled "Antibiotic Resistance" organized by the Mizoram University, Aizawl (17 July, 2020)

Ph.D Students: N.A.

M.Sc Dissertations: 3 (Completed), 2 (Ongoing)

Workshops and training courses

- 1. Attended a 2-day workshop on 'Molecular biology and Histomorphology' organized by Omega Test House at Govt. Mohindra College, Patiala(3rd -4th November, 2014)
- 2. Attended First State Level Workshop on Insect Taxonomy organized by Department of Zoology and Environmental Sciences, Punjabi University, Patiala in collaboration with Association of Entomologists (9th March, 2015)
- 3. Attended UGC sponsored, 7-Day Faculty Development Program, under the theme of 'Academic Writing; From Critical Appreciation To Publication' organized by IQAC (Internal Quality Assurance Cell), M.M.Modi College, Patiala (9-16 January 2017)
- 4. Attended UGC sponsored, One week Faculty Development Program, under the theme of 'Contemporary issues in Higher Education' organized by IQAC (Internal Quality Assurance Cell), M.M.Modi College, Patiala (20-26 July, 2018)

- 5. Attended Faculty Development Program, under the theme of 'Emerging issues and Challenges in Higher Education' organized by IQAC (Internal Quality Assurance Cell), M.M.Modi College, Patiala (17-22 July, 2019)
- **6.** Attended a Virtual National Seminar organised by Postgraduate Government College for Girls, Sec-42, Chandigarh on 'Role of Biodiversity during COVID-19' on 22 May, 2020.
- 7. Attended a webinar organised by Ch. Devi Lal College of Pharmacy, Jagadhri, Haryana in association with Indian Red cross Society on "COVID19" on 23rd May, 2020
- **8.** Attended One day International Webinar on 'Post COVID Challenges before Indian Education System' organized by Council for Teacher Education Foundation (CTEF) and Multani Mal Modi College, Patiala on 29th May, 2020
- **9.** Attended 4-Week **Induction/Orientation Programme**organized by Teaching Learning Centre, Ramanujan College, University of Delhiunder the aegis of Ministry Of Human Resource Development PanditMadan Mohan Malaviya National Mission On Teachers And Teaching (PMMMNMTT) and obtainedgrade A+(04 June–01 July, 2020)
- **10.** Attended 3-day INYAS-CUPB **Virtual Workshop** #BluePlanet encompassing 7 lecturesorganized by Indian National Young Academy of Sciences (INYAS) and Department of Geology, Central University ofPunjab, Bathinda, India in connection with World Oceans Day (7th- 9th June, 2020)
- 11. Attended 3-day DAVCB-CUPB-INYAS Lecture Workshop '#ZeroWaste'encompassing 9 lectures organized by DAV College, Bathinda, Central University of Punjab, Bathinda and Indian National Young Academy of Sciences, New Delhi (16th-18th June, 2020)
- **12.** Attended **Seven DaysFaculty Development Programme** on "RESEARCH METHODOLOGY FOR SOCIAL SCIENCES" organized by Council for Teacher Education Foundation (Punjab and Chandigarh Chapter) in collaboration with Multani Mal Modi College, Patiala (20th -26th June, 2020).
- **13.** Attended 7 day **Science Leadership Workshop** organized by Central University of Bathinda, Punjab (22nd to 28th June, 2020)
- **14.** Attended **Two Weeks Faculty Development Programme** on "ADVANCED CONCEPTS FOR DEVELOPING MOOCS" organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry Of Human Resource Development PanditMadan Mohan Malaviya National Mission On Teachers And Teaching (PMMMNMTT) (02 July–17 July, 2020)
- **15.** Attended 7 day **International Faculty Development Program** on "Innovative Methods for Virtual Classroom Teaching: A Road to MOOCs" organized by Punjab Commerce And Management Association (10-16 July, 2020)

16. Participated in and completed "Integrated Pest Management" an **eight-week online course**, aPanditMadan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) supported **MOOC**. Certificate issued by Centre for Continuing Education (CCE), IIT Kanpur, India and Commonwealth of Learning (COL), Canada (issued on 30th June, 2020)

Achievements, Awards and Recognitions

- Reviewer for many International and National Journals of repute
- Organized '10-day Workshop on Modern Techniques in Sciences' from July 11-20, 2016 at Multani Mal Modi College, Patiala
- Organizing Secretary of 2nd National Symposium on Emerging Trends in Biological Sciences (NSETB, 2016) from November 12, 2016 at Multani Mal Modi College, Patiala
- Organized '2nd Annual Workshop on Modern Techniques in Biological Sciences' from July 21-28, 2017 at Multani Mal Modi College, Patiala
- Organized '3nd Annual Workshop on Modern Techniques in Biological Sciences' from July 31- Aug 06, 2018 at Multani Mal Modi College, Patiala

Membership

- Member: Board of Undergraduate Studies in Zoology, Punjabi University, Patiala (25th January, 2017 to 31st December, 2018)
- Member: Cell for Prevention of Sexual harassment of Women at Workplace, Punjabi University, Patiala (2013-2016)